

Recent IBM Patents

The following patents were recently issued by the countries in which the inventions were made.

France

7,443,560 A. Desblanche
7,443,621 Y. Gautier and C. Marzin
7,443,622 J. M. Lemoine

System for Detecting Transmitted Digital Data
Logic Circuit in Complementary MOS Technology for Comparing, in Particular, Two Words of Two Bits Each
Fabrication Techniques for Multilayer Ceramic Modules

Sweden

74,147,646 N. G. Stalberg

Method and Device for Coded Information Processing

Switzerland

591,740 P. L. Gueret

Superconducting Storage Devices

United Kingdom

1,464,570 P. L. Gardner

Microprogram Control Units

United States

4,021,278 R. K. Hood and K. H. Raacke
4,021,655 R. A. Healey and T. L. Jeremiah
4,021,711 J. J. Erickson, H. L. Leland and E. S. Mathisen
4,021,779 P. L. Gardner
4,021,789 A. Furman, H. L. Kalter and J. W. Nagel
4,021,838 W. A. Warwick
4,023,421 R. A. Berlier and A. B. Brown
4,023,965 J. C. Suits
4,024,214 L. M. Foster and J. E. Scardefield
4,024,293 M. Hatzakis
4,024,305 W. A. Alpaugh and W. J. Summa
4,024,342 A. Croisier and A. E. Desblache
4,024,417 K. Heuber, K. Najmann, R. Remshardt and K. Tertel
4,024,462 J. L. Highnote and R. L. O'Day
4,024,489 C. H. Bajorek, R. D. Hempstead, S. Krongelb and A. F. Mayadas
4,024,500 N. M. Herbst and J. H. Morrissey
4,024,510 R. C. Pearson
4,024,548 V. M. Alonso, D. R. Cialone, G. R. Ducharme and P. D. Ginnings
4,024,561 A. K. Ghatalia
4,024,629 J. M. Lemoine and J. L. Mathis
4,025,023 J. S. Moffitt
4,025,380 E. T. Bernardo
4,025,719 H. Nussbaumer
4,025,799 D. T. Cox, S. J. Hong and D. L. Ostapko
4,025,837 J. H. Meier and J. W. Raider
4,025,863 H. A. Higuchi and L. P. Trubell
4,025,908 R. L. DeRemer and D. A. Heuer
4,025,909 N. F. Brickman and J. C. Logue

Reduced Meniscus-contained Method of Handling Fluids in the Manufacture of Semiconductor Wafers
Oversized Data Detection Hardware for Data Processors Which Store Data at Variable Length Destinations
Article Positioner with Zero Position Sensing Means
Microprogram Control Units
Self-aligned Integrated Circuits
Semiconductor Integrated Circuit Devices
Reversing Lead Screw Construction
Ni-Fe-Rh Alloys
Method of Preparing β'' -Al₂O₃
High Sensitivity Resist System for Lift-off Metallization
Method for Producing a Resin Rich Epoxy Prepreg and Laminate
System for Detecting Digital Data Transmitted by Modulating a Carrier
Integrated Semiconductor Structure with Means to Prevent Unlimited Current Flow
Darlington Configuration High Frequency Differential Amplifier with Zero Offset Current
Magnetoresistive Sandwich Including Sensor Electrically Parallel with Electrical Shunt and Magnetic Biasing Layers
Segmentation Mechanism for Cursive Script Character Recognition Systems
Function Multiplexer
Liquid Absorbing Assembly with Two Porosities
Field Effect Transistor Monitors
Fabrication Techniques for Multilayer Ceramic Modules
Bursting Apparatus
Variable Resist Laminator
Phase-Directed Decision Feedback Equalizer
Decoder Structure for a Folded Logic Array
Adaptive Control Circuit for a Stepping Motor
Regulating Electric Power Circuit Arrangement
Dynamic Array with Clamped Bootstrap Static Input/Output Circuitry
Simplified Dynamic Associative Cell

4,025,925	D. F. Jensen, H. C. Lee and J. C. Tamulis	Multi-Nozzle Ink Jet Printer and Method of Printing
4,026,543	R. J. Leclere	Document Article Handling Control
4,026,630	H. P. Wollenmann	Scanning Apparatus Using Holographic Beam Deflector
4,026,713	C. J. Sambucetti and J. W. Mitchell	Water Based Magnetic Inks and the Manufacture Thereof
4,026,759	D. G. McBride and P. H. Pallady	Method of Making Ingrown Lead Frame with Strain Relief
4,027,137	H. G. Liedtke	Laser Drilling Nozzle
4,027,176	K. Heuber, W. Klein, K. Najmann, R. Remshardt and S. K. Wiedmann	Sense Circuit for Memory Storage System
4,027,196	T. N. Criscimagna and M. J. Steinmetz	Bilateral Selective Burst Erase System
4,027,201	J. L. Bacon and J. W. Spears	Apparatus and Method for Neutralizing Static Charges in Sheet/Web Feeding Devices
4,027,207	C. J. Parsons	Electrical Safety Bypass
4,027,246	G. A. Caccoma, P. P. Castrucci and W. O. Druschel	Automated Integrated Circuit Manufacturing System
4,027,267	L. D. Larsen	Method of Decoding Data Content of F2F and Phase Shift Encoded Data Streams
4,027,283	D. T. Tang	Resynchronizable Bubble Memory
4,027,300	R. J. Braun	Bubble Memory Package
4,027,308	G. J. Fan and R. A. Toupin	Method and Apparatus for Forming Droplets From a Magnetic Liquid Stream
4,027,309	D. F. Manning and B. A. Wolfe	Ink Jet Printer Apparatus and Method of Printing
4,027,310	D. L. Baker and D. W. Skinner	Ink Jet Line Printer
4,027,321	R. H. Collins, R. F. Levine, W. D. North, G. D. O'Rourke and G. R. Parker	Reliable MOSFET Device and Method for Making Same
4,027,935	H. P. Byrnes and R. Wahl	Contact for an Electrical Contactor Assembly
4,028,149	J. L. Deines, S.-M. Ku, M. R. Poponiak and P. J. Tsang	Process for Forming Monocrystalline Silicon Carbide on Silicon Substrates
4,028,150	R. H. Collins, R. F. Levine, W. D. North, G. D. O'Rourke and G. R. Parker	Method for Making Reliable MOSFET Device
4,028,346	E. M. Engler and V. V. Patel	Tetraselenofulvalene, Dithiodiselenofulvalene and the TCNQ Salts Thereof
4,028,493	A. E. Brennemann and S. S. Soo	Call Progress Signal Detector
4,028,535	P. A. Franaszek and D. A. Thompson	Apparatus and Method for Generating a Data Code with a Spectral Null
4,028,558	L. G. Heller, L. M. Terman and Y. S. Yee	High Accuracy MOS Comparator
4,028,667	F. C. Breslau and G. Goertzel	Asynchronous, Hierarchical Loop Communication System with Independent Local Station Control of Access to Inbound Time Portions Without Central Control
4,028,670	R. L. Hoffman, W. G. Kempke and F. G. Soltis	Fetch Instruction for Operand Address Calculation
4,028,672	H. Chang	Rewritable Bubble Domain Decoder
4,028,677	W. S. Rosenbaum	Digital Reference Hyphenation Matrix Apparatus for Automatically Forming Hyphenated Words
4,028,685	J. S. Eggenberger and O. Voegeli	Field Access Propagation of Bubble Lattice
4,028,694	P. W. Cook and S. E. Schuster	A/D and D/A Converter Using C-2C Ladder Network
4,028,714	W. H. Henkels	Ultralow-Power, Micro-Miniaturized Josephson Devices Having High Inductance
4,028,717	R. C. Joy, I. E. Magdo and A. Phillips, Jr.	Field Effect Transistor Having Improved Threshold Stability
4,028,731	R. B. Arps, L. R. Bahl and A. Weinberger	Apparatus for Compression Coding Using Cross-Array Correlation Between Two-Dimensional Matrices Derived From Two-Valued Digital Images
4,029,351	D. H. Apgar and R. F. Kilburn	Bernoulli Pickup Head with Self-Restoring Anti-Tilt Improvement
4,029,419	P. A. Schumann, Jr. and A. H. Tong	Textile Color Analyzer Calibration
4,029,522	F. H. De La Moneda	Method to Fabricate Ion-Implanted Layers with Abrupt Edges to Reduce the Parasitic Resistance of Schottky Barrier FET's and Bipolar Transistors
4,029,562	B.-C. Feng and J. S. Lechaton	Forming Feedthrough Connections for Multi-Level Interconnections Metallurgy Systems
4,029,970	S. J. Hong and D. L. Ostapko	Changeable Decoder Structure for a Folded Logic Array
4,029,975	H. H. Zappe	Low-Crosstalk-Automatic Resetting Scheme for Josephson Junction Logic Circuit
4,029,977	H. D. Chai and J. P. Pawletko	Rotary Stepper Motor and Method of Operation
4,029,999	E. W. Neumann and E. J. Rabenda, Jr.	Thermally Conducting Elastomeric Device
4,030,012	O. R. Buhler	Amplifier Malfunction Detector

4,030,015	J. M. Herko and J. M. Joyce	Pulse Width Modulated Voltage Regulator-Converter/Power Converter Having Push-Push Regulator-Converter Means
4,030,076	A. Blum, J. Hajdu, C. E. Mohr, L. Reichl and G. Sonntag	Processor Nucleus Combined with Nucleus Time Controlled External Registers Integrated with Logic and Arithmetic Circuits Shared Between Nucleus and I/O Devices
4,030,136	J. T. Smith and F. E. Talke	Flexible Disk Pack Accessing Apparatus and Method
4,030,190	K. J. Varker	Method for Forming a Multilayer Printed Circuit Board
4,030,591	B. R. Martin, J. H. Meier and J. W. Raider	Controls for a Movable Disk Printer
4,030,923	D. L. Krause and K. D. Presley	Mixture of Binder Materials for Use in Connection with a Charge Transport Layer in a Photoconductor
4,030,942	W. A. Keenan and C. T. Kroll	Semiconductor Masking for Device Fabrication Utilizing Ion Implantation and Other Methods
4,031,519	G. I. Findley	Printer
4,031,521	P. H. Hall and J. W. Irwin	Multimode Programmable Machines
4,031,994	J. O. Schaefer	Double Tab Rack for a Typewriter
4,031,996	D. G. Busch	Tab Repositioning System
4,032,058	J. Riseman	Beam-Lead Integrated Circuit Structure and Method for Making the Same Including Automatic Registration of Beam-Leads with Corresponding Dielectric Substrate Leads
4,032,227	J. H. Hubbard and G. W. Van Cleave	Toner Concentration Control Apparatus
4,032,372	M. B. Vora	Epitaxial Outdiffusion-Technique for Integrated Bipolar and Field Effect Transistors
4,032,719	H. Blasbalg	Modular Slot Interchange Digital Exchange
4,032,887	D. C. Roberts	Pattern-Recognition Systems Having Selectively Alterable Reject/Substitution Characteristics
4,032,889	E. G. Nassimbene	Palm Print Identification
4,032,894	R. R. Williams	Logic Array with Enhanced Flexibility
4,032,899	C. J. Jenny and K. A. Kuemmerle	Apparatus and Method for Switching of Data
4,032,904	K. L. Anderson and L. M. Arzubi	Means for Refreshing AC Stable Storage Cells
4,032,962	J. Balyoz, A. J. Gruodis, T.-S. Jen and W. F. Mikhail	High Density Semiconductor Integrated Circuit Layout
4,032,978	K. Y. Wong	Pseudo Halftone Print Generator and Method
4,032,982	N. K. Arter and H. C. Jackson	Adaptive Voltage Control of Motor in an Incrementing Magnetic Tape Transport
4,033,173	A. Firdaus	Method and System for Sensing an Identifying Means
4,033,673	H. Seki	Erasable Visual Image Display Device
4,033,698	H. M. Demsky, E. S. Mathisen, P. A. Schumann, Jr. and A. H. Tong	Apparatus for Textile Color Analysis
4,033,795	B. S. Berry and W. C. Pritchett	Method for Inducing Uniaxial Magnetic Anisotropy in an Amorphous Ferromagnetic Alloy
4,034,130	M. Briska and E. Eisenbraun	Method of Growing Pyrolytic Silicon Dioxide Layers
4,034,133	H. R. Fleck and C. P. Mignosa	Magnetic Recording Medium with Lubricant
4,034,159	R. H. Buron	Switching System for Multichannel Lines
4,034,243	R. D. Love, J. W. Cullen and R. W. Kruppa	Logic Array Structure for Depletion Mode-FET Load Circuit Technologies
4,034,309	J. E. Vaughn	Apparatus and Method for Phase Synchronization
4,034,356	F. E. Howley, J. W. Jones and J. C. Logue	Reconfigurable Logic Array
4,034,357	K. B. Mehta and O. Voegeli	Patterns for Use in the Field Access Propagation of a Bubble Lattice
4,034,411	E. J. Kraemer and T. R. Patel	Magnetic Disk Information Storage Apparatus
4,034,468	N. G. Koopman	Method for Making Conduction-Cooled Circuit Package
4,034,469	N. G. Koopman and P. A. Totta	Method of Making Conduction-Cooled Circuit Package
4,034,975	M. C. Agnew, J. R. Reidenbach and J. M. Rigotti	Reading Machine for Punched Document Cards
4,035,198	R. H. Dennard and V. L. Rideout	Method of Fabricating Field Effect Transistors Having Self-Registering Electrical Connections Between Gate Electrodes and Metallic Interconnection Lines, and Fabrication of Integrated Circuits Containing the Transistors
4,035,276	J. Havas, J. S. Lechaton and J. S. Logan	Making Coplanar Layers of Thin Films
4,035,522	M. Hatzakis	X-Ray Lithography Mask
4,035,607	L. L. Wu	Integrated Heater Element Array
4,035,664	H. H. Berger and S. K. Wiedmann	Current Hogging Injection Logic
4,035,667	L. G. Heller	Input Circuit for Inserting Charge Packets into a Charge-Transfer-Device
4,035,710	J. M. Joyce	Pulse Width Modulated Voltage Regulator-Converter/Power Converter Having Means for Improving the Static Stability Characteristics Thereof
4,035,767	C. L. Chen and R. A. Rutledge	Error Correction Code and Apparatus for the Correction of Differentially Encoded Quadrature Phase Shift Keyed Data (DQPSK)

4,035,774	I. F. Chang	Bistable Electroluminescent Memory and Display Device
4,035,778	M. Z. E.-A. Ghanem	Apparatus for Assigning Space in a Working Memory as a Function of the History of Usage
4,035,779	R. E. Birney, M. I. Davis, R. A. Hood, T. S. McDermott and L. E. Wise	Supervisor Address Key Control System
4,036,381	T. C. Nielsen and J. L. Sirico	Apparatus for Transferring Sample Holders Relative to a Movable Magazine
4,036,554	R. J. Bennett and D. R. Grischkowsky	Laser Modulator for Producing Dark-Pulses
4,036,556	A. H. Knight and T. T. Underhill	Preconditioning Image Transfer Areas in Document Reproduction Machines
4,036,644	L. H. Kaplan, J. B. Lounsbury and S. M. Zimmerman	Photoresist Process and Photosensitive O-Quinone Diazide Article with Aliphatic Carboxylic Acid as Adhesion Promoter
4,036,723	B. C. Schwartz, R. D. Silksen and G. Steving	RF Bias Sputtering Method for Producing Insulating Films Free of Surface Irregularities
4,037,122	G. B. Bonner and J. L. Dessel	Linear Actuator
4,037,207	R. E. Birney, W. S. Osborne and L. A. Graybiel	System for Controlling Address Keys Under Interrupt Conditions
4,037,213	J. D. Atkins, C. A. Murphy and L. E. Stotts	Data Processor Using a Four Section Instruction Format for Control of Multi-Operation Functions by a Single Instruction
4,037,214	R. E. Birney, M. I. Davis and R. A. Hood	Key Register Controlled Accessing System
4,037,215	R. E. Birney, M. I. Davis, R. A. Hood, L. A. Graybiel, S. Kahn and W. S. Osborne	Key Controlled Address Relocation Translation System
4,037,264	J. A. Barkley, N. L. Robinson and F. B. Shelledy	Magnetic Head Housing with Wedge Locking Means
4,037,707	T. C. Ku and D. J. Stiles	Cup Shaped Printer
4,037,732	A. W. Orlando and F. A. Schultz	Positioning Apparatus
4,037,830	H. B. Poluzzi, A. M. Roberti and W. R. Romich	Wafer Handler
4,037,912	H. S. Besser, G. Kieven and J. Wettlaufer	Terminal Assembly
4,037,928	R. B. Champ and M. D. Shattuck	Visual Image Display Device
4,037,941	J. G. Belleson and K. Clark	Inspection Tool